

REMARKS

Responsive to the Office Action mailed June 23, 2011, which is understood to be a new non-final Office Action re-opening prosecution responsive to Applicants' Appeal Brief, Applicants respectfully request reconsideration and allowance of the application including the claim amendments as set forth herein.

Status of the Claims

The Office Action reports examination of pending claims 3-15.

Claims 4-7 and 13-15 stand rejected under 35 U.S.C. § 102(b) as allegedly anticipated by Kamiyama, U.S. Pub. No. 2002/0035326 (hereinafter "Kamiyama").

Claims 3, 8, and 9 stand rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over Bis et al., U.S. Pat. No. 6,493,571 (hereinafter "Bis") in view of Kamiyama.

Claims 10 and 11 stand rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over Kamiyama in view of Becker, U.S. Pat. No. 6,094,161 (hereinafter "Becker").

Claim 12 stands rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over Kamiyama in view of Becker in further view of Bis.

Telephonic Examiner Communication Summary

Applicants' last submission was an Appeal Brief. The instant Office Action mailed June 23, 2011 is a non-final Office Action (*see* Office Action Summary) that applies new references. It appears that the Office Action is intended to be accompanied by re-opening of prosecution. However, the Office Action does not expressly state that prosecution is re-opened.

In a telephone call to Examiner Helene Bor initiated on Sept. 19, 2011 by Robert M. Sieg (Reg. No. 54,446) representing Applicants, clarification was requested. The Examiner confirmed that prosecution has been re-opened and that the instant Office Action should be treated as a new non-final Office Action.

In accord with the foregoing, the present Amendment G responds to the instant Office Action with the understanding that prosecution is re-opened and that the application is not under final rejection.

Claim amendments

Claim 12 is placed into independent form including the limitations of base claims 6 and 11. **Claims 6 and 11** are canceled and **claim 13** is placed off claim 12.

Claim 9 is amended for clarification.

Claim 15 is amended to incorporate the subject matter of claim 14. **Claim 14** is canceled herein.

After amendment claims 3-5, 7-10, 12, 13, and 15 are pending with claims 9, 12, and 15 being written in independent form.

**The claims present patentable subject matter
and should be allowed**

Claim 9 recites the control system is set up to displace the patient support among various imaging stations and conduct several different magnetic resonance imaging sequences at each individual imaging station, the control system grouping all image acquisition sequences to be performed at each individual imaging station together and performing all image acquisition sequences to be performed at each individual imaging station together before the patient support is moved to a next imaging station of the various imaging stations.

Claim 9 stands rejected as allegedly obvious in view of Bis and Kamiyama. Bis is cited as disclosing “the control system capable of grouping all image acquisition sequences to be performed at each individual station together and performing all image acquisition sequences to be performed at each individual station together before the patient support is moved to a next station of the various imaging stations (Figure 8).” Office Action page 5.

Cited Bis Fig. 8 is reproduced below:

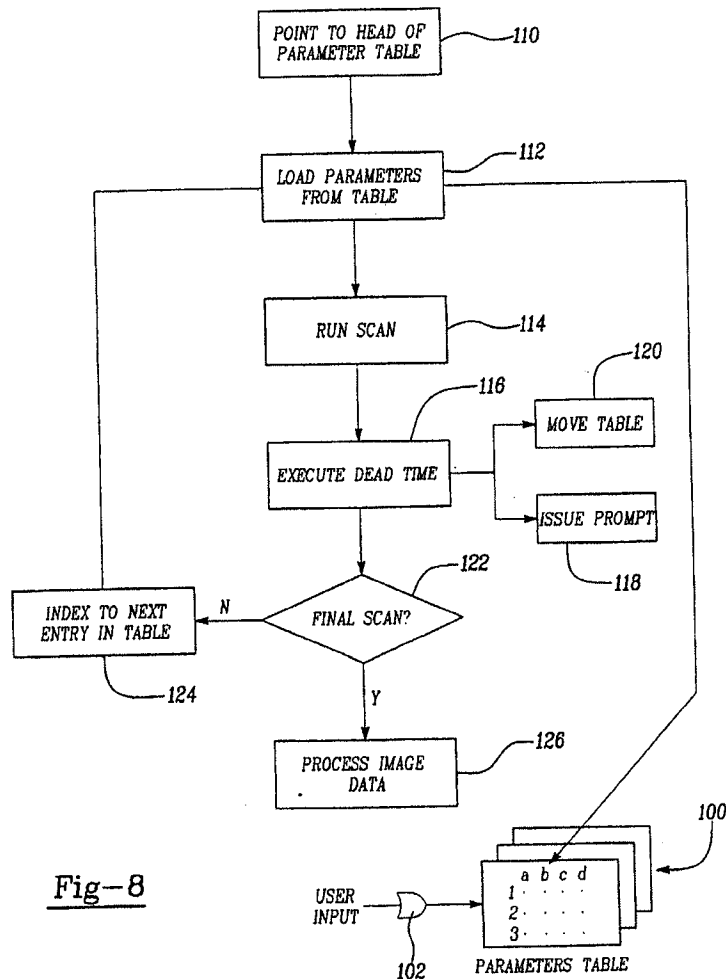


Fig-8

Bis discloses running a scan (114) followed by dead time (116) during which the table is moved (120) to the next station and flow iterates (124). It appears that Bis runs only a *single* scan at each station. This is consistent with the purpose of Bis' multistation imaging, which is to perform MR angiography (MRA) at, e.g. two body parts with only a single bolus injection. Bis col. 2 lines 61-67. This is achieved by moving from one body part (i.e., imaging station) to the next "within a predetermined amount of time corresponding to travel of said contrast material from said first body portion to said second body portion". Bis claim 1; *see also* col. 7 lines 24-29. There is no fair suggestion of conducting several different magnetic resonance imaging sequences at each individual imaging station, and indeed movement from body part to body part (i.e., station to station) would need to be rapid in order to keep pace with blood flow through the body, leaving little time at each station to conduct multiple sequences.

Accordingly, it is respectfully submitted that Bis does not disclose or fairly suggest a control system set up to displace the patient support among various imaging stations *and conduct several different magnetic resonance imaging sequences at each individual imaging station*, the control system *grouping all image acquisition sequences to be performed at each individual imaging station together* and performing all image acquisition sequences to be performed at each individual imaging station together before the patient support is moved to a next imaging station of the various imaging stations. Moreover, Kamiyama does not even relate to MR, much less to multistation MR imaging as set forth in claim 9.

Claim 12 recites the scheduler module is arranged to issue instructions to the user prompted by the operational items during the execution of the operational items including an instruction to the user prompted by execution of an operational item calling for applying a surface RF coil.

Claim 12 stands rejected based on a proposed combination of Kamiyama, Becker, and Bis. In this combination, Bis is relied upon as allegedly disclosing surface coils. Bis does indeed disclose surface coils, for example in Bis claim 3 as cited in the Office Action. *However*, Bis does not disclose or fairly suggest applying a surface RF coil *during a scan*. As such, Bis cannot fairly suggest a scheduler module arranged to issue instructions to the user ... including an instruction *to the user prompted by execution of an operational item calling for applying a surface RF coil*. Indeed, Bis teaches away from moving surface coils during an imaging session, stating: "With current MRI systems, when an anatomical location is completely imaged, the table and patient are then moved centering a different anatomical location in the center of the magnetic field. Using conventional techniques, this requires a considerable amount of time including moving the surface coils that are placed anterior and posterior to the body to be properly aligned with the different anatomical location as well as the center of the magnetic field." Bis col. 5 lines 34-41. In claimed embodiments of the Bis invention, the surface coils do not move during the dead time (116). *See* Bis claims 4-6.

Accordingly, it is respectfully submitted that Bis does not disclose or fairly suggest a scheduler module arranged to issue instructions to the user ... including an

instruction to the user prompted by execution of an operational item calling for applying a surface RF coil. The remaining references of the three-reference combination do not remedy this deficiency of Bis.

Claim 15 recites a control system to control the execution of operational items by the diagnostic imaging system on the basis of an execution list; and a user interface coupled to the control system, the user interface including a scheduler module which generates an ordered selection of operational items, wherein the scheduler module autonomously orders the operational items by arranging the operational items in said ordered selection of operational items based on respective parameter settings of the operational items, and wherein the scheduler module releases operational items to the execution list according to the ordered selection and provides progress information to the user interface during a diagnostic imaging session related to the way the execution of operational items is advancing in the diagnostic imaging session in progress; wherein *the scheduler module supports an editing mode in which an operator can edit the autonomously ordered selection of operational items.*

Examined claim 14 (which has scope identical with claim 15 herein amended to incorporate dependent claim 14) stands rejected as allegedly anticipated by Kamiyama, which is cited as teaching “wherein the scheduler module supports an editing mode in which the operator can edit the autonomously ordered selection of operational items (Figure 7 and Page 6, Para 0080).” Office Action page 4.

Cited Kamiyama Fig. 7 is reproduced below:

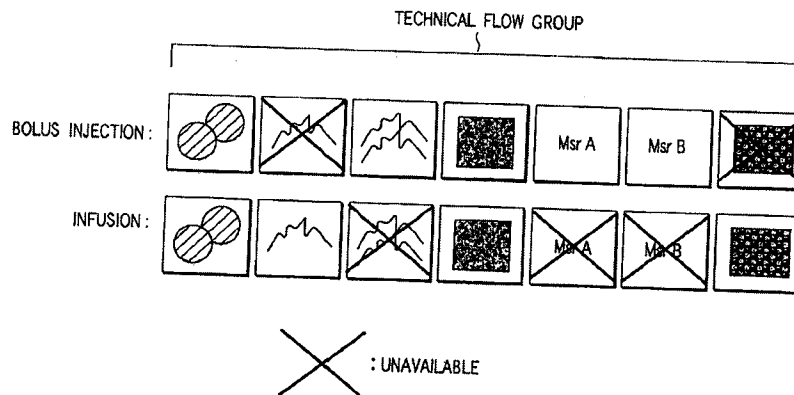


FIG. 7

Kamiyama textually discloses:

[0079] FIG. 7 is a view illustrating a function for explicitly indicating a selectable technical flow from an inspection protocol configuration (restriction in other words).

[0080] For example, contrast medium administration techniques include: a Bolus injection technique for administering the medicine in the injector in batch for a short time; and an infusion technique for continuously injecting a very small amount of medicine over a long period of time by a specific injector. A certain limitation applies to the administration techniques depending on the diagnosis/analysis protocol. In this work flow system, when the user inputs an administration technique to currently executable, as shown in FIG. 7, selectable diagnosis/analysis protocols and unallowable protocols are explicitly indicated.

This refers only to *inspection* of the output of the work flow system. Specifically, this is an example in which the output of the work flow system is that the requested work flow is *not* consistent, and cannot be performed, because the elements marked by the letter “X” are unavailable. Respectfully, there is no fair suggestion that the work flow system supports an editing mode in which an operator can edit the autonomously ordered selection of operational items. At most, Kamiyama para. [0080] and Fig. 7 discloses user input of a work flow that is *then processed* by the work flow system, with the output of the work flow system (Fig. 7) indicating that the workflow is not consistent and cannot be performed.

Moreover, Kamiyama does not fairly suggest the subject matter of amended claim 15. As disclosed in Kamiyama, the purpose of its reorganization work flow determining section (328) is to optimize the work flow if possible (i.e., if the work flow is self-consistent) or alternatively to warn the user if the workflow is not consistent and cannot be executed. Kamiyama para. [0051]. Allowing the user to edit the reorganized output would be counterproductive since it would allow the user to introduce inconsistencies or inefficiencies into the optimized workflow generated by the reorganization work flow determining section (328).

Accordingly, it is respectfully submitted that claim 15 distinguishes patentably over the references.

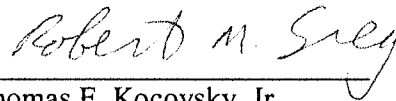
CONCLUSION

For the reasons set forth above, it is respectfully submitted that claims 3-5, 7-10, 12, 13, and 15 as set forth herein present patentable subject matter and meet all statutory requirements. Accordingly, Applicants earnestly request allowance of claims 3-5, 7-10, 12, 13, and 15 as set forth herein.

In the event that personal contact is deemed advantageous to the disposition of this case, the Examiner is requested to telephone the undersigned at (216) 363-9000.

Respectfully submitted,

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